

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-029141

(43)Date of publication of application : 04.02.1997

(51)Int.Cl.

B05B 1/34  
A62C 31/02  
B05B 1/12

(21)Application number : 07-185981

(71)Applicant : NOHMI BOSAI LTD

(22)Date of filing : 21.07.1995

(72)Inventor : NAKAMURA MASAYUKI  
SHIGA KAZUMICHI

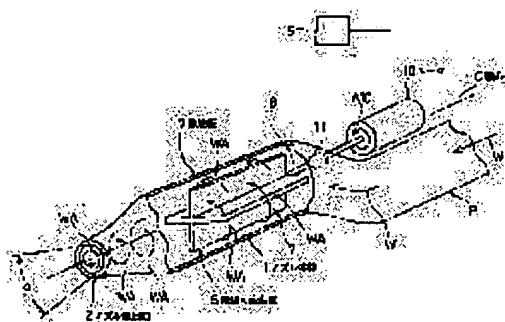
## (54) NON-STAGE VARIABLE SPRAY NOZZLE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To control the rotational speed of straightening plates to arbitrarily adjust a spray angle and also to secure a required range on rotation stoppage of the straightening plates by arranging the straightening plates extending in the axial direction on a rotating shaft coaxially arranged with a nozzle body in the nozzle body having a jetting port.

**SOLUTION:** When water W is forcibly fed into a pump P, the water W is passed through a nozzle body 1 of a non-stage variable device 5 and is discharged from a nozzle jetting port 2. At this time, a motor 10 is rotated in the direction of the arrow A10 to rotate straightening plates 7 of the non-stage variable device 5 in the same direction.

Thus the water W passed through the nozzle body 1 is given rotational force in the direction of the arrow WA by the straightening plates 7, and is sprayed at a prescribed spray angle  $\alpha$  while it is turned into a turning flow. The rotation speed of the non-stage variable device 5 is arbitrarily controlled by a controller 15 for the motor 10. On the other hand, when the rotation of the non-stage variable device 5 is stopped, the water flowing down in the nozzle body 1 is discharged straight from the nozzle jetting port 2 without being turned.



## LEGAL STATUS

[Date of request for examination] 10.07.2002

[Date of sending the examiner's decision of rejection] 04.01.2005

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office